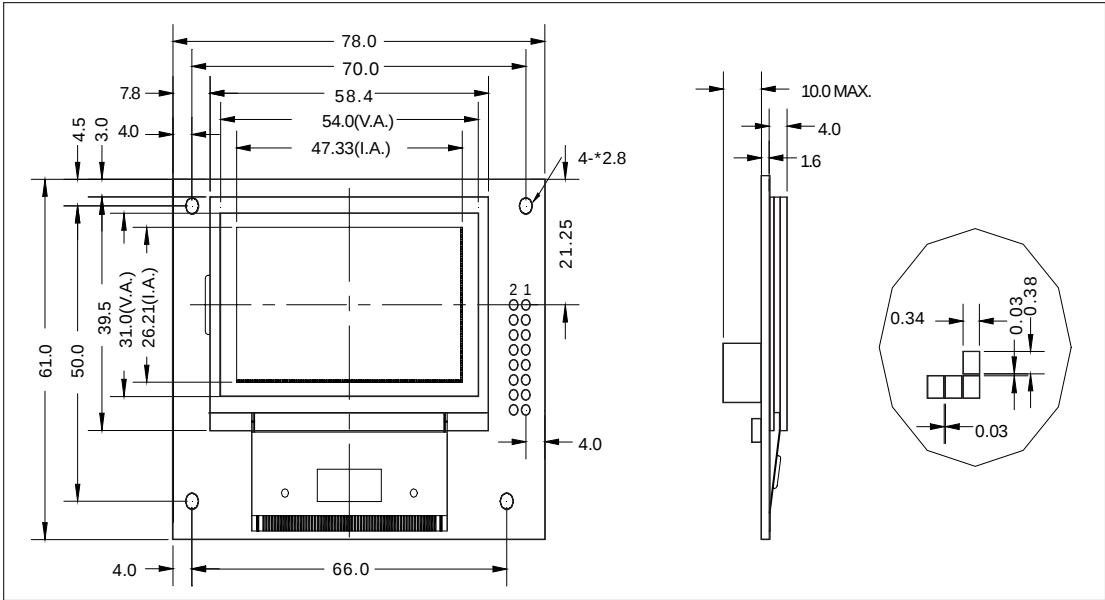


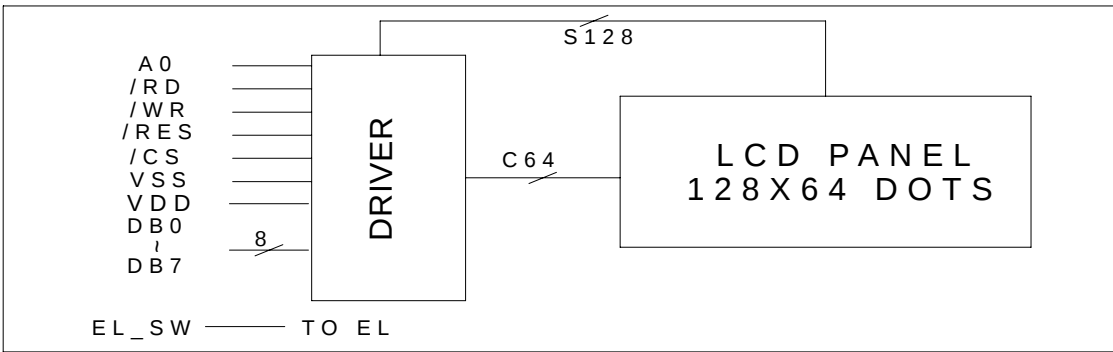
1.0 Features

- * Display Mode: Reflective/Transflective/Transmissive and Positive Type STN
- * Input Data: 8-Bits Parallel Data Input from a MPU
- * Assembly: TAB
- * Backlight: Optional

2.0 External Dimensions



3.0 Block Diagram



4.0 Maximum Rating

Item	Symbol	Test Condition	Standard Value		Unit
			Min.	Max.	
Supply Voltage for Logic	VDD-VSS	Ta=25 °C	0	5.5	V
Supply Voltage for LCD	VDD-VEE		0	15	V
Input Voltage	Vi		0	VDD	V
Operating Temperature	Topr	—	-20	70	°C
Storage Temperature	Tstg	—	-40	80	°C

5.0 Electro-Optical Characteristics

Item		Symbol	Conditions	Standard Value			Unit
				Min.	Typ.	Max.	
Power Supply for Logic	Logic	Vdd	—	2.4	3.3	5.5	V
	LCD Drive	Vdd-Vee		—	—	12.5	
Frame Frequency		f FLM	Vdd=5.0V	—	75	—	Hz
Current Consumption		Idd	Vdd=5.0V, Vdd-V0=12.0 f FLM=75Hz	—	8.5	—	mA
LCD Driving Voltage(Recommended)		Vdd-V0	Ta=25℃; Ø, θ=0°	11.5	12.0	12.5	V
Response Time(Rising)		Tr	Ta=25℃; Ø, θ=0°	—	150	200	ms
Response Time(Decay)		Td		—	200	250	ms
Viewing Angle		Ø2-Ø1	K≥2	-30	—	30	DEG.
Contrast Ratio		K	Ø=0°, θ=0°	2.0	5.0	—	—

6.0 Power Supply for LCM



7.0 I/O Connection

Pin No	Symbol	Level	Function
1	A0	H/L	H: Display Data L: Instruction Data
2	/RD	H/L	L: Read
3	/WR	H/L	L: Write
4	/RES	H/L	Controller reset at low level
5	/CS	H/L	Chip selection
6	GND	0V	Ground
7	EL-SW	H/L	Power Supply for EL
8	VDD	5V	Power Supply for Logic
9	DB0	H/L	Data Bus Line
10	DB1	H/L	
11	DB2	H/L	
12	DB3	H/L	
13	DB4	H/L	
14	DB5	H/L	
15	DB6	H/L	
16	DB7	H/L	